

Specifications of Indonesian Aluminum Alloy Cable Management Frames

Article Overview

Indonesian aluminum alloy cable management frames are lightweight, corrosion-resistant, and customizable structures designed for efficient cable support in industrial and commercial installations.

Material Composition and Mechanical Properties

Aluminum alloy frames in Indonesia are typically made from hard-drawn aluminum alloy wires, often containing 97-99% aluminum with magnesium and silicon for enhanced strength and corrosion resistance. These alloys provide high mechanical strength, low weight, and excellent sag characteristics, making them suitable for supporting heavy cable loads while maintaining structural integrity. The maximum resistivity of aluminum alloy conductors is around 0.0328 Ohm.mm²/m at 20°C, ensuring efficient electrical performance.

Design and Construction

Aluminum frames, also referred to as aluminum profiles, are designed for easy assembly without welding, allowing for flexible modifications and rapid installation. Common features include:

- o Lightweight and strong: Facilitates transport and installation while resisting corrosion.
- o Non-magnetic: Suitable for high-voltage and sensitive electronic applications.
- o Customizable cross-sections: SF and SF2 series profiles offer optimized rigidity and cost performance.
- o Additional processing options: Drilling, 45° cutting, and end-face tapping for site-specific requirements.

Cable Tray and Ladder Integration

Aluminum alloy frames are often used in conjunction with cable trays and ladders, which support electrical cables in buildings and industrial facilities. Specifications include:

- o Tray thickness: 1.5mm or 2.0mm for light to medium duty.
- o Rung spacing: Standard 300mm for uniform support.
- o Height and return edges: Adjustable to accommodate cable volume and prevent bending.
- o Compliance: Designed according to NEMA standards for industrial applications.

Advantages

- o Corrosion resistance: Aluminum alloys resist rust and environmental degradation, suitable for indoor and outdoor use.
- o Ease of assembly: Modular design reduces labor and allows for quick modifications.

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- o High load capacity: Supports multiple cables efficiently, especially in high-rise or industrial installations .
- o Aesthetic and functional: Smooth surface finish and customizable profiles enhance both appearance and utility .

Applications

Indonesian aluminum alloy cable management frames are widely used in:

- o Commercial buildings: Offices, hotels, and hospitals .
- o Industrial facilities: Factories, water treatment plants, and power distribution centers .
- o Data centers: Supporting structured cabling and high-density network installations .

Manufacturer References

- o PT Kabelindo Murni Tbk: Offers aluminum alloy conductors with XLPE insulation for indoor and outdoor low-voltage applications .
 - o PT ZTT Cable Indonesia: Provides high-strength aluminum alloy conductors with superior corrosion resistance and low electrical loss .
 - o MISUMI Indonesia: Supplies modular aluminum frames with customizable profiles and processing options .
 - o Baruna Tray Indojaya: Manufactures cable trays and ladders compatible with aluminum frames, compliant with NEMA standards .
 - o Sutrado Kabel: Offers technical support and custom solutions for cable management systems in Indonesia .
- These specifications ensure that aluminum alloy cable management frames in Indonesia provide durable, flexible, and efficient solutions for modern electrical infrastructure.

A complete range of aluminium cables for industrial use At Top Cable you will find a reliable manufacturer and supplier of aluminium

Delivering engineered solutions in cable management ABB manufacturers a comprehensive range of cable tray systems and

WESCOSA Cable Runway is made of 40 x 20 Rectangle Tubular Section with cross members welded at 9 inch intervals. We

The current carrying capacity of gap type heat resistant aluminum alloy conductors at 210°C is 2.0 times of ordinary ASCR

SCM Cable Tray manufacturer & supplier in Indonesia. Aluminum, steel, and stainless steel trays with

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galvanized finishing for secure

Nusantara Electric was established in 2008, our factory is located on a very strategic location in Tangerang, Banten, Indonesia. We

Kabel Tray Aluminium tersedia dalam beragam ukuran sesuai kebutuhan yang dirancang untuk

Since aluminum cable trays are homogenous material throughout, their service life is unaffected by scratches and field modifications.

Custom Aluminum Cable Ladder What is an Aluminum Cable Ladder An aluminum cable ladder is an open-frame cable management

Explore aluminum extruded Indonesia: detailed technical specs, quality standards, performance data, and practical applications in

Aluminium Foundry Alloy INALUM produces Aluminium Foundry Alloy type A356.2 using a degassing process using nitrogen to

Cable tray shall be installed according to the latest revision of NEMA VE-2. Material and Finish: Straight sections, fitting side rails,

Metsec experts come together to discuss the types and benefits of industrial cable management and metal framing

Kami menyediakan sistem penyangga kabel lengkap--mulai dari Cable Tray, Cable Ladder, Terminal Box, hingga Pintu

In accordance with its continuous improvement policy, Legrand reserves the right to change the specifications and illustrations

AAAC 6201 Type A3 All Aluminium Alloy Conductor 6201 Type A3 Standard Specification : IEC 61089 : 1991 Size Number / Dia. of

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